

IN THE CLAIMS

Following is a complete set of claims as amended with this response, which includes amendments to claims 1, 9, 17, and 25.

1 1. (currently amended) A method for scheduling traffic in a network, the
2 method comprising:
3 dividing a hardware schedule table into N logical schedule tables, the N logical
4 schedule tables being separated by table delimiters and operating independently of one
5 another; and
6 assigning an identifier in a scheduling table, the scheduling table being one of the N
7 logical schedule tables, the identifier corresponding to a connection in the network.

1 2. (original) The method of claim 1 wherein each of the table delimiters
2 corresponds to at least one unused entry in the hardware schedule table.

1 3. (original) The method of claim 2 wherein each of the N logical schedule
2 tables corresponds to a class of service.

1 4. (original) The method of claim 1 wherein assigning comprises:
2 determining if a first entry requested by the network for the identifier is occupied;
3 and
4 assigning the identifier to a second entry if the first entry is occupied, the second
5 entry being available for occupancy.

1 5. (original) The method of claim 4 further comprising:
2 assigning the identifier to the first entry if the first entry is available for occupancy.

1 6. (original) The method of claim 5 further comprising:
2 assigning the identifier to a third entry if the second entry coincides with one of the
3 table delimiters, the third entry being a next available entry found from a beginning of the
4 scheduling table.

1 7. (original) The method of claim 6 wherein the network is an asynchronous
2 mode transfer (ATM) network.

1 8. (original) The method of claim 7 wherein the identifier is a virtual channel
2 identifier.

1 9. (currently amended) A computer program product comprising:
2 a computer usable medium having computer program code embodied therein to
3 schedule traffic in a network, the computer program product having:
4 computer readable program code for dividing a hardware schedule table into N
5 logical schedule tables, the N logical schedule tables being separated by table delimiters
6 and operating independently of one another; and
7 computer readable program code for assigning an identifier in a scheduling table,
8 the scheduling table being one of the N logical schedule tables, the identifier corresponding
9 to a connection in the network.

1 10. (original) The computer program product of claim 9 wherein each of the
2 table delimiters corresponds to at least one unused entry in the hardware schedule.

1 11. (original) The computer program product of claim 10 wherein each of the N
2 logical schedule tables corresponds to a class of service.

1 12. (original) The computer program product of claim 9 wherein the computer
2 readable program code for assigning comprises:
3 computer readable program code for determining if a first entry requested by the
4 network for the identifier is occupied; and
5 computer readable program code for assigning the identifier to a second entry if the
6 first entry is occupied, the second entry being available for occupancy.

1 13. (original) The computer program product of claim 12 further comprising:

2 computer readable program code for assigning the identifier to the first entry if the
3 first entry is available for occupancy.

1 14. (original) The computer program product of claim 12 wherein the computer
2 readable program code for assigning further comprising:
3 computer readable program code for assigning the identifier to a third entry if the
4 second entry coincides with one of the table delimiters, the third entry being a next
5 available entry found from a beginning of the scheduling table.

1 15. (original) The method of claim 14 wherein the network is an asynchronous
2 mode transfer (ATM) network.

1 16. (original) The method of claim 15 wherein the identifier is a virtual channel
2 identifier.

1 17. (currently amended) A system comprising:
2 a network interface bus;
3 a physical interface device coupled to the network interface bus to request a
4 connection by an identifier; and
5 a network processor coupled to the network interface bus having at least a hardware
6 schedule table to schedule traffic in the network, the at least hardware schedule table being
7 divided into N logical schedule tables separated by table delimiters and operating
8 independently of one another, the identifier being assigned in one of the N logical schedule
9 tables.

1 18. (original) The system of claim 17 wherein each of the table delimiters
2 corresponds to at least one unused entry in the hardware schedule table.

1 19. (original) The system of claim 18 wherein each of the N logical schedule
2 tables corresponds to a class of service.

1 20. (original) The system of claim 17 wherein the identifier is assigned to a
2 second entry if a first entry requested by the network for the identifier is occupied, the
3 second entry being available for occupancy.

1 21. (original) The system of claim 20 wherein the identifier is assigned to the
2 first entry if the first entry is available for occupancy.

1 22. (original) The system of claim 20 wherein the identifier is assigned to a
2 third entry if the second entry coincides with one of the table delimiters, the third entry
3 being a next available entry found from a beginning of the scheduling table.

1 23. (original) The system of claim 22 wherein the network is an asynchronous
2 mode transfer (ATM) network.

1 24. (original) The system of claim 23 wherein the identifier is a virtual channel
2 identifier.

1 25. (currently amended) A system comprising:
2 a processor;
3 a network processor coupled to the processor, the network processor having a
4 scheduler for scheduling traffic in a network using a hardware schedule table; and
5 a memory coupled to the processor to store a program, the program, when executed
6 by the processor, causing the processor to:
7 divide the hardware schedule table into N logical schedule tables separated
8 by table delimiters and operating independently of one another, and
9 assign an identifier in a scheduling table, the scheduling table being one of
10 the N logical schedule tables, the identifier corresponding to a connection in the
11 network.

1 26. (original) The system of claim 25 wherein each of the table delimiters
2 corresponds to at least one unused entry in the hardware schedule table.

1 27. (original) The system of claim 26 wherein the scheduler assigns the
2 identifier to a second entry if a first entry requested by the network for the identifier is
3 occupied, the second entry being available for occupancy.

1 28. (original) The system of claim 27 wherein the program, when causing the
2 processor to assign the identifier in the scheduling table, causing the processor to:
3 assign the identifier to a third entry if the second entry coincides with one of the
4 table delimiters, the third entry being a next available entry found from a beginning of the
5 scheduling table.

1 29. (original) The system of claim 28 wherein the network is an asynchronous
2 transfer mode (ATM) network.

1 30. (original) The system of claim 29 wherein the identifier is a virtual channel
2 identifier.

1 31. (original) The system of claim 30 wherein the network processor is a
2 segmentation and reassembly processor.